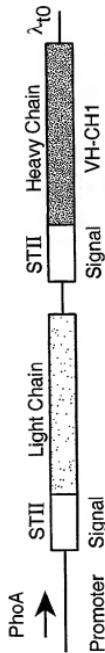
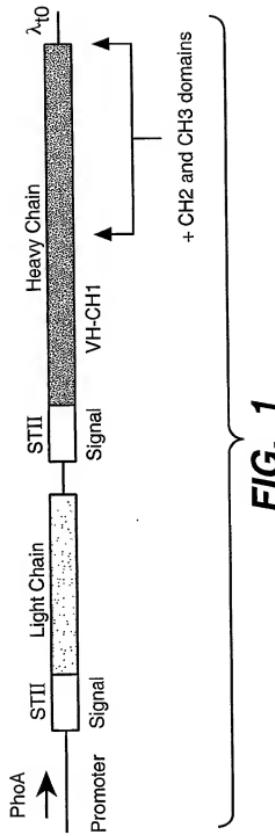


Fab Expression Vector pAK19

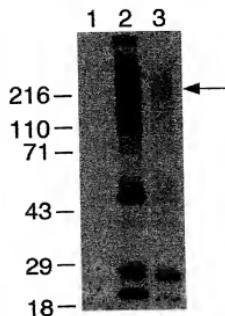
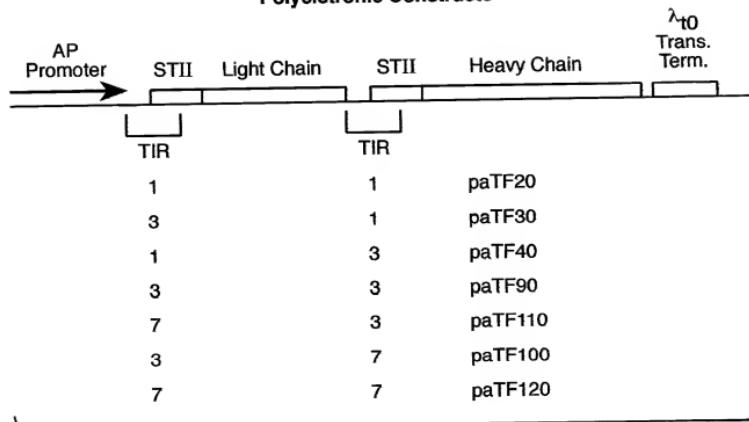


Full Length Antibody Expression Vector Derived from pAK19



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**FIG._2****Polycistronic Constructs****FIG._3**

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polycistronic
reduced

neg. 1L 3L 1L 3L 7L 3L 7L
1H 1H 3H 3H 3H 7H 7H

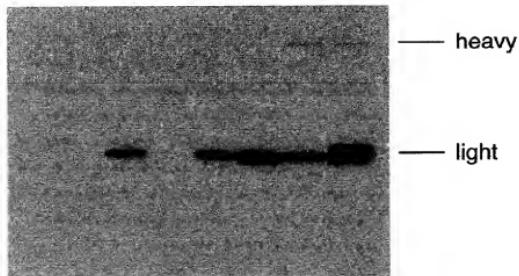


FIG. 4A

polycistronic
non-reduced

neg. 1L 3L 1L 3L 7L 3L 7L
1H 1H 3H 3H 3H 7H 7H

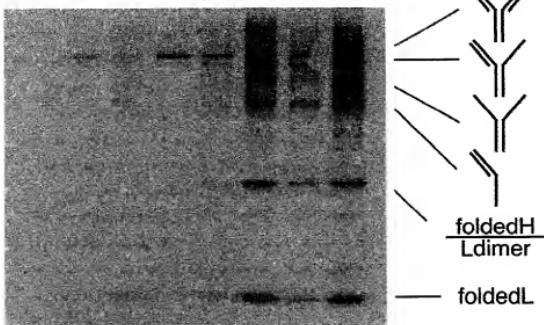


FIG. 4B

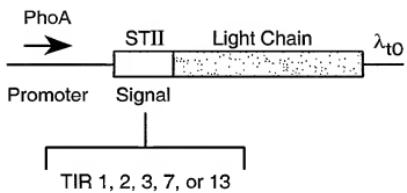
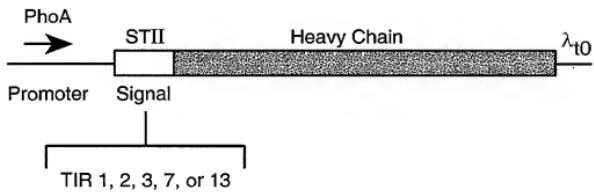
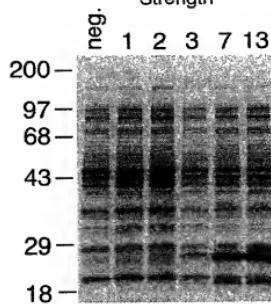
Light Chain Constructions**Heavy Chain Constructions**

FIG._5

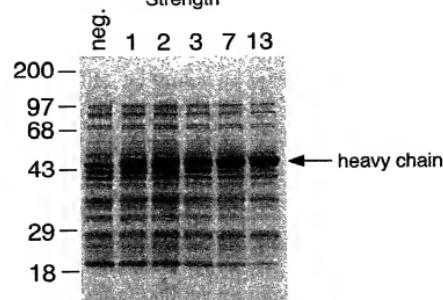
+

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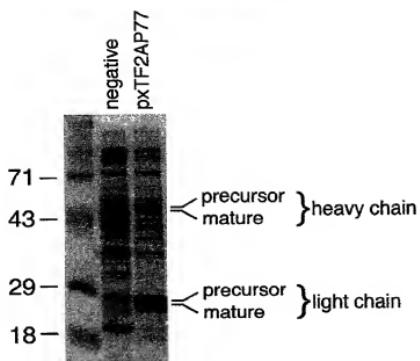
TIR
Relative
Strength

**FIG._6A**

TIR
Relative
Strength

**FIG._6B**

negative
pxTF2AP77

**FIG._8**

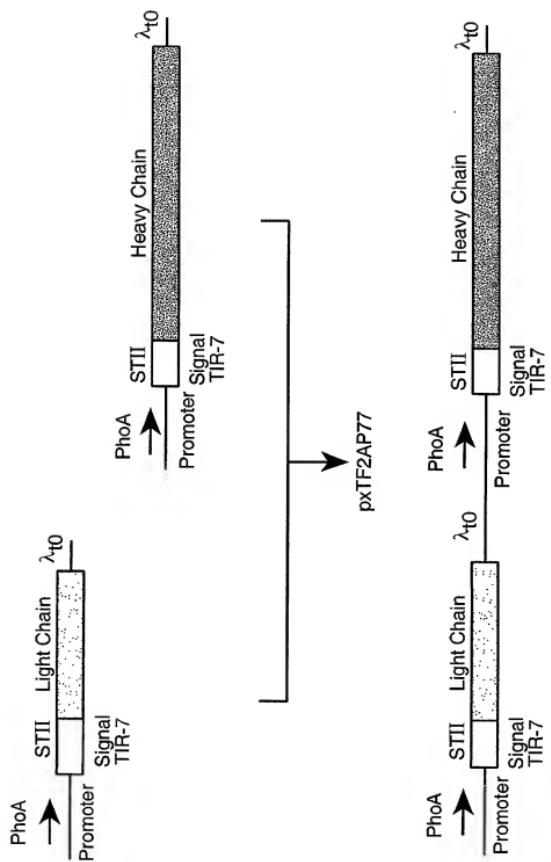


FIG.-7

Separate Cistron Constructs

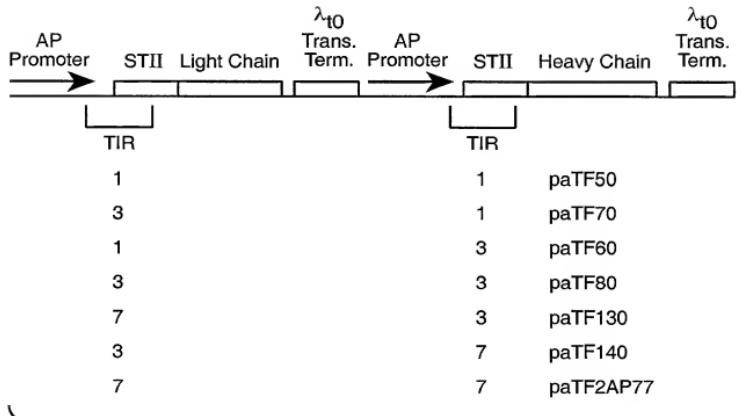
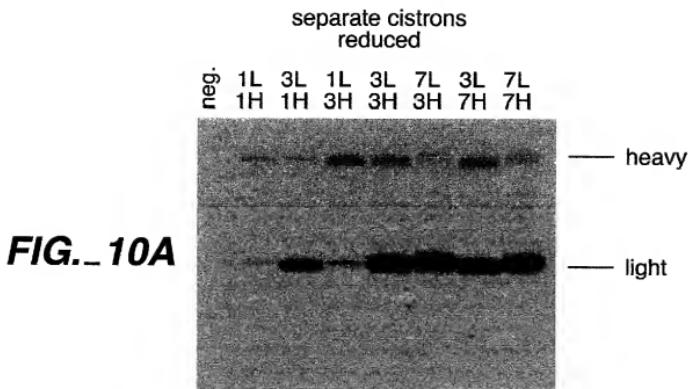
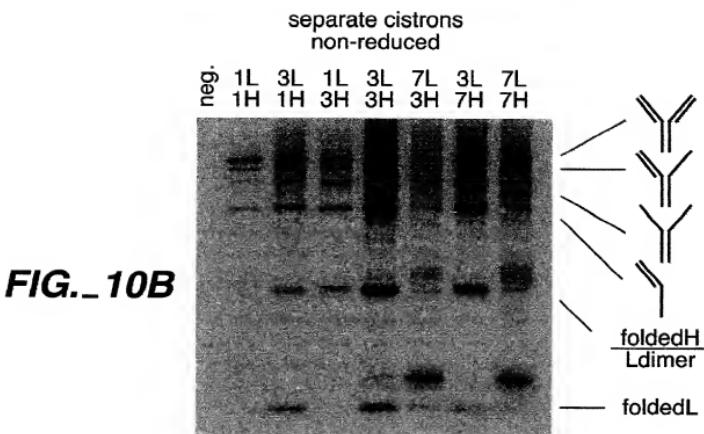


FIG.-9

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**FIG. 10A****FIG. 10B**

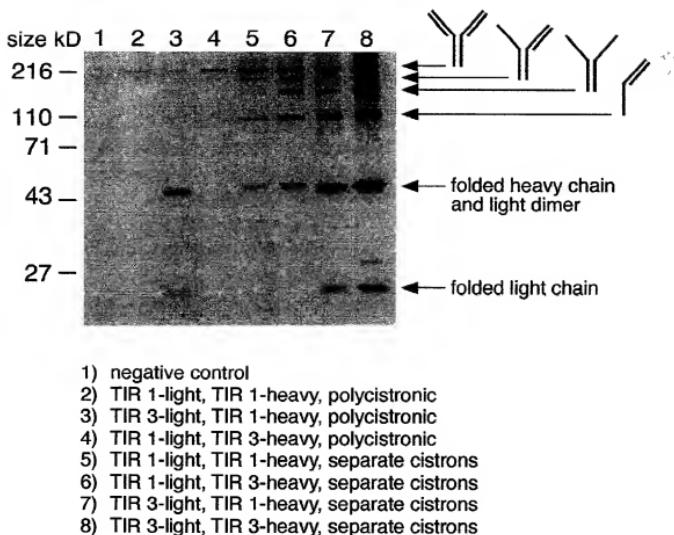


FIG.- 11

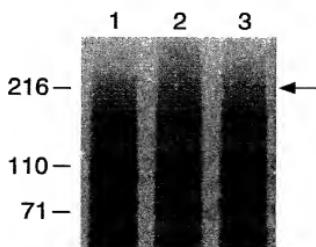


FIG.- 12

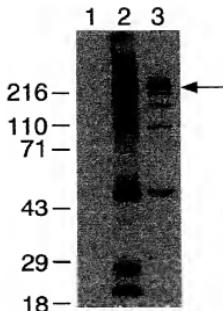


FIG._13

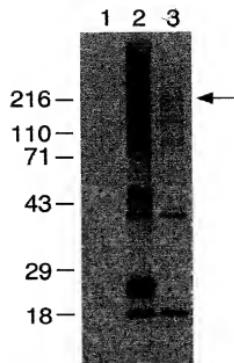


FIG._14

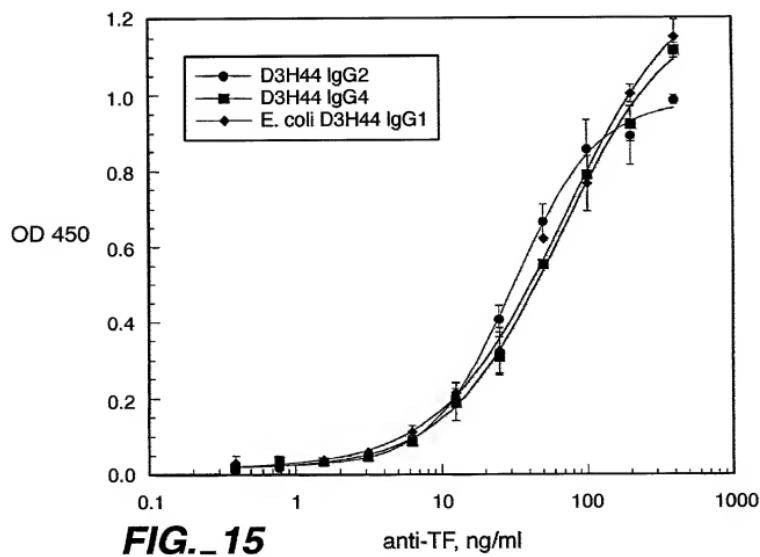


FIG._15

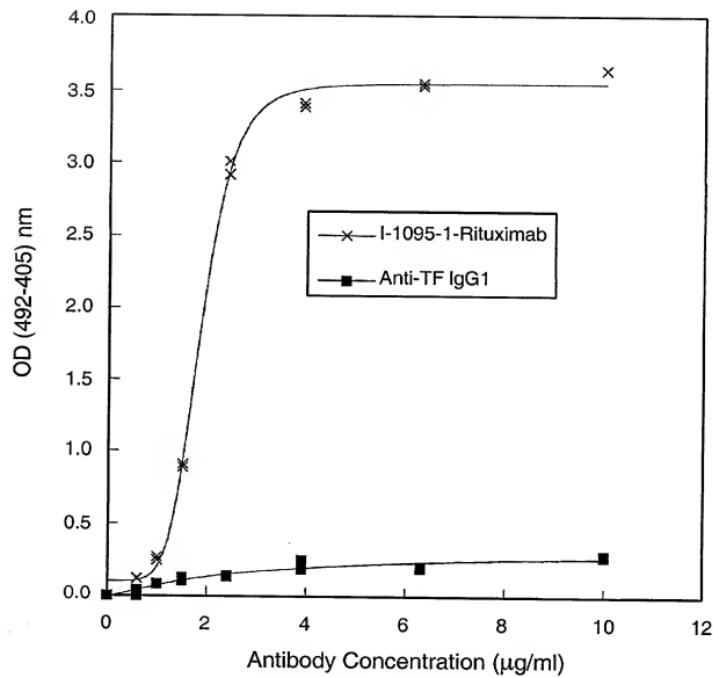


FIG._ 16

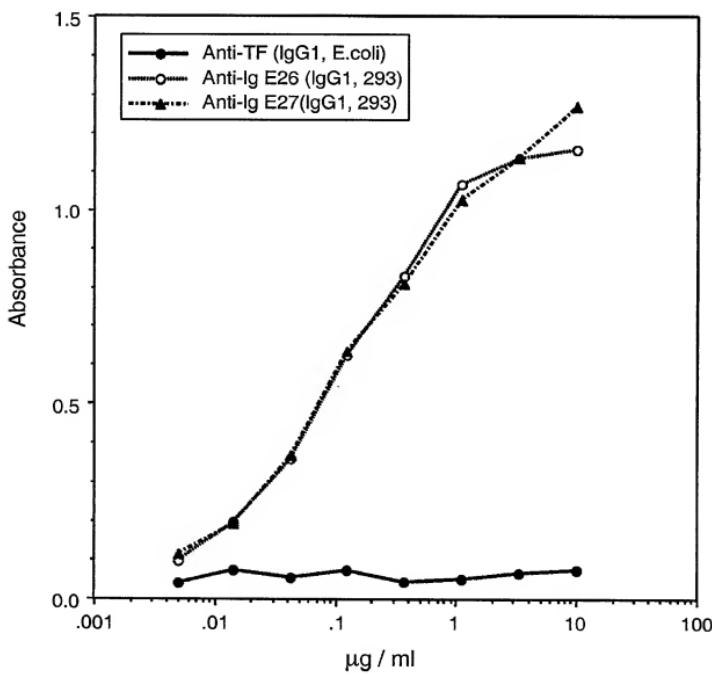


FIG._17

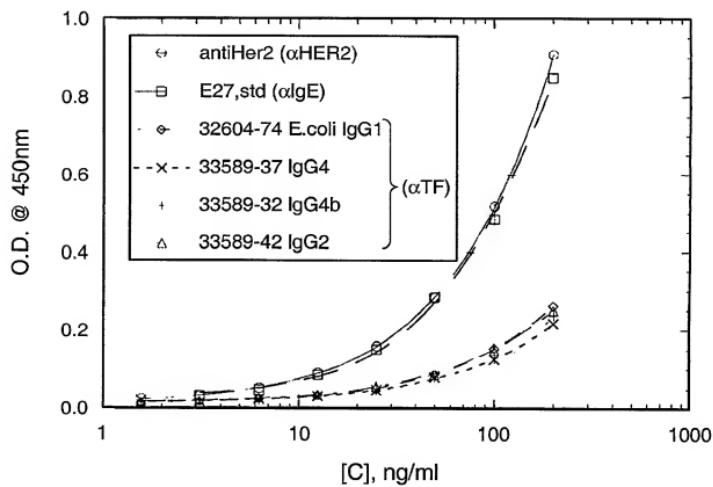


FIG._ 18

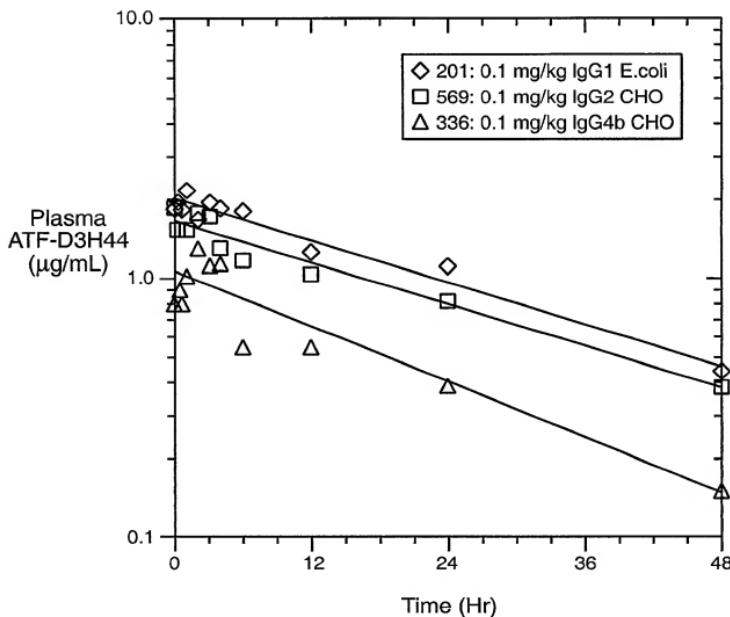


FIG._19

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FIG. 20a

203250" 98/02/01

1201 CTGCTGTCG GCGGGGGT TTATATGC AACGTGATG AACGTGATG GCGGGTGTAG GCGGGGGT TTATATGC AACGTGATG
GAGGCGAAGG CGCGCGCGA AATTAATCA CGCGCGCGA TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
1301 CGCAATGG CGCAAAATGA CGCAAGGGG TTGATGATC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
1401 AGCTCTCG CGTATGAG AACGTGATG TTGATGATC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
TGAGAGCGC GTATGATC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
1501 TAGCGCTT GTTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
ATCGCGAGA CGATATCAA AATTAATCA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
1601 TGCAATGATG TTGTTTGTGTTT CTAATGCTAC AAAGGGTAC GCTGGCTGAA GCTGGCTGAA GCGGGGGT TTATATGC AACGTGATG
AGCTGGCTAC AACGTGATG AACGTGATG TTGTTTGTGTTT CTAATGCTAC AAAGGGTAC GCTGGCTGAA GCGGGGGT TTATATGC AACGTGATG
1701 TTGCGATGATG CTAATGCTAC AAAGGGTAC GCTGGCTGAA GCGGGGGT TTATATGC AACGTGATG TTGTTTGTGTTT CTAATGCTAC AAAGGGTAC GCTGGCTGAA GCGGGGGT TTATATGC AACGTGATG
AGCTGGCTAC AACGTGATG AACGTGATG TTGTTTGTGTTT CTAATGCTAC AAAGGGTAC GCTGGCTGAA GCGGGGGT TTATATGC AACGTGATG
1801 AAGAGCGAG CGATATCAA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
GTCGCGCTC GTTGTGCTAC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
77 E Q G N T I Y D P K F Q D R A T I S A D N S K N T A Y L Q M N S I
1901 CGCTGCTGCG GAGCGGGT ACTTGAGCTA CGGGGGCTA GAGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
CGCGAGCTAC CGTGTGGCG AGATATCAA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
43 L S C A A S G F V F S I A T A T N A Y A E V Q L V E S G G G L V Q P G G S L R
110 R A E D T A V Y Y C A R D T A A Y F D Y W G Q G T L V T V S S A S
1801 CGAGAGCGC CGATGTCTC CGCCCGCGA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
GTCGCGCTC CGCCCGCGA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
77 E Q G N T I Y D P K F Q D R A T I S A D N S K N T A Y L Q M N S I
1901 CGCTGCTGCG GAGCGGGT ACTTGAGCTA CGGGGGCTA GAGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
CGCGAGCTAC CGTGTGGCG AGATATCAA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
110 R A E D T A V Y Y C A R D T A A Y F D Y W G Q G T L V T V S S A S
2001 ACCAGGGC CGATGTCTC CGCCCGCGA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
143 T K G P S V F P L A P S S K S T T S G G T A A L G C L V K D Y F P E P
2101 CGCTGCTGCG GAGCGGGT AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
CGCGAGCTAC CGTGTGGCG AGATATCAA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
177 V T V S W N S G A L T S G V H T F P A V L Q S S G L Y S L S S V V
2201 GAGCTGCTC CGTGTGGCG AGATATCAA AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG GCGGGGGT TTATATGC AACGTGATG
210 T V P S S S L G T Q T Y I C N V N H K P S N T K V D K K V E P K S

FIG.-20b

10. *Leucosia* (Leucosia) *leucosia* (L.) *leucosia* (L.) *leucosia* (L.) *leucosia* (L.)

3301

FIG. 20c

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FIG.-21a

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1201 CTCGGTGGCC GCGGGGGCTT TTATATGTTG GATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1301 GAGCCAAACGG CGGCCCGGAA AAGAAATCAA CGGCTGGCGG AGCTGGTGGC TGGAGCTTAC AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1401 CGCAATATGG CGAAATATGG CCAACAGGGG TGGATGATC AGCTGGTGGC TGGAGCTTAC AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1401 AGCTGGTGGC GCGGTTTACT GCTCTGATC AGCTGGTGGC TGGAGCTTAC AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1501 TAGTCGCTT GTTATGTTG TTATATGTTG TTGTAACTAG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1501 ATCAAGGAA CAAAATCAA AAGAAATCAA CGCAATATGG CCAACAGGGG TGGATGATC AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1501 M K K N I A F L L

1601 TGGCTCTATG TTGCGTTTTT CTATGCTTAC AAAGCGCTAC GCTGGAGGGT AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1601 AGCTGGATCA AGGAAAAA GATAAAGATG TTTCGGATG CGATCTCGAG TGCGACCTTG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
10 A S M F V F S I A T N A Y A E V Q L V E S G G L V Q P G G S L R

1701 TGGTCTCTG CAGCTCTGG CTAGGAGCTTG AGCGATCTGG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1701 AACAGGAAAC GTCGAGAAC GATGGTGGAG TGGCTGATGC CATACTGGAC CGACGAGTC AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
43 L S C A A S G Y D F T H Y G M N W V R Q A P G K G L E W V G W I N T

1801 CCTATACCGG TGAAACGCC ATGGTGGGG ATTCTAACAG TGGTTCACAT TTCTCTCTAG AGCTCTCCAA AGCAACAGCA TACCTCAGCA TGAAGCTGCT
1801 GATATGGC ACITGGTGG ATTACAGCTGG ATGAGTGGC TGAATGTTGC AGCAAGAACG AAGAAGTGGC ATGGTGGTGG AGCTGGTGGT AGCTGGTGGC
77 Y T G E P T Y A D F K R P F T S K D T S K T L Q M N S L

1901 GGGCGCTGAG GACATGCGG TGTAACTTG TGCAATGATC CGCTGAGAG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
1901 CGCGCGACTC CTGGAGGGC AGATATGAG ACCTGCTAC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
110 R A E D T A V V Y C A K Y P Y Y G T S H W Y F D V W G Q G T L V

2001 ACCGCTCTCCT CGGCCTCCAC CAAAGGGCCA TCGCTCTCC CGCTGAGACAG AGCACTCTG GGGCACAGC GGCCTGGGC AGCTGGTGGC GCGGAGGGC ATCTGGATG
2001 TGGCGAGA GCGGGGGG GPTCCCGGGT AGCTGGAGG GGGAGGCGG GGGAGGAGG GGGAGGAGG GGGAGGAGG GGGAGGAGG GGGAGGAGG GGGAGGAGG GGGAGGAGG
143 T V S S A S T K G P S V F P L A P S S K S T S G G T A A L G C L V K

2101 AGGACTTACTT CCCCAGGAGG CTCAGGCTTG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
2101 TCCGATGAA GGGCGTTGGC CACTCCACCA GCAACCTCTG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
177 D Y F P E P V T V S W N S G A L T S G V H T F P A V L Q S S G L Y

2201 CTCCTCTAGC AGCTGGTGA CGCTGCTCTG TAGAGCTGG GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
2201 GAGGGAGTC TGCGACCACT GATCTGAAAC CGCTGCTCTG TAGAGCTGG GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG AGCTGGTGGC GCGGAGGGC ATCTGGATG
210 S L S S V V T V P S S L G T Q T Y I C N V N H K P S N T K V D K

FIG.-21b

2301 AAGTTGAGC CCAAACTTG TGACAAACT CACACATGCC CACCGTGCAC AGCACCTGAA CTCCTGAGGG GACCGTGTAGT CTCCTGCTTC CTCCTGCTTC
 2310 TTCTACTG GGTGAGAC ACTGTTGAA GTGTTGAACT GGGCACCGG TGCTGAGCTT GGGGACCCCT CTGGAGCAGCA GAGGAGAGG GGGGGTTG
 2401 CGAAGACAC CCCTGAGTC CCGCTGAGCC CTGAGTCAC ARGCTGAGTG GTGGACCTGAA GCGACAGAGA CCTGAGTCAC AGCTGAGTCAC
 2410 GCTGCTGG GGTGACTGG AGGGCTGG GACTGAGTG TACGCTGAGC GACTGAGCT GCTGCTGG AGCTGAGCT GCTGCTGG AGCTGAGCT
 2420 K V E P K S C D K T H T C P P C P A P E L L G G P S V F L F P P K P
 2430 K D T L M I S R T P E V T C V V V D V S H E D P E V K F N W Y V D
 2501 CGGCTGAGA GTGGCTGAGG CCAAGACAA CGGGCTGGAG GAGGGCTGAGA CGGGCTGAGA CGGGCTGGAG GAGGGCTGAGA
 2510 GCGGACCTC CACGCTTAC GGTGCTGCTAC GGTGCTGCTAC GGTGCTGCTAC GGTGCTGCTAC GGTGCTGCTAC GGTGCTGCTAC
 310 G V E V H N A K T K P R E E Q Y N S T Y R V V S V L T V L H Q D W
 2601 CTGATGCGA AGGAGTACAA GGGAGGAGC CCCCCTGAG AAGACCTT CCAAGCCCA AGGGACGCC CGAGAACCC
 2610 GACTTACCTC TCCCTGAGT CACGTTGCTCG AGGTGTTGAG GGGGGAGCT TTGGTTGAGA GGTGGTGGTT TCCCTGAGG GGTGGTGGT
 343 L N G K E V K K V S R T C A L P A P I E K K T I S K A K K Q O P R E P Q
 2701 AGGTGACAC CGTGCCCCAA TCCGGGGAGA AGATGACAA GAAAGGGCTC AGGTGACCT GGTGCTGAA AGGTGCTGAA TGGGCTGAA
 2710 TCCACATGG GGTGGGGGT AGGGCCCTC TCTACGTTT CTGGCTGGAG CGGACAGCTT TCCGAGATA GGTGCTGAA AGGTGCTGAA
 3377 V Y T L P P S R E E M T K N Q V S L T C L V K G F Y P S D I A V E
 2801 GTGGGAGAG AATGGGAGC AGGGAGACAA CTACAGACCC AGGGGGCTCCG TCTGGAGCTT AGGGGGCTCCG TCTGGAGCTT
 2810 CACCCCTGG TTACCCCTGG GCCTGCTGGT GATGTTCTGG TGGGGGGGGC AGGGGGCTGG AGGGGGCTGG AGGGGGCTGG
 410 W E S N G Q P E N N Y K T T P P V L D S D G S F F L Y S K L T V D
 2901 AAGGACGAT GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG
 2910 TCTGCTGCA GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG GGTGGAGGG
 443 K S R W Q Q N V F S C S V M H E A L H N H Y T Q K S L S L S P G K
 3001 AATAGCTGAA CCTGGCTCA CTTGGCTGAA AGTGGGGCTT AGTGGGGCTT AGTGGGGCTT AGTGGGGCTT AGTGGGGCTT
 3010 TATATGGCTA CGGGGGGGG TCCGAGGAT TCCGAGGAA CGGGGGGGG CGGGGGGGG CGGGGGGGG CGGGGGGGG
 4477 O
 3101 TCGCTGAGT TATGAGTAA AATGGCTAA CGGGGGGGG CGGGGGGGT GGTGGGGCTT GGTGGGGCTT GGTGGGGCTT
 3110 AGGGCTCA ATATGGCTCA TTTAGGTT GGTGGGGCTT GGTGGGGCTT GGTGGGGCTT GGTGGGGCTT GGTGGGGCTT
 3120 *Start Tet Resistance Coding Sequence
 3201 CTGGTGGCT AGGCTGGT ATGGCGGTAC TGGGGGGCTT CTTGGGGCTC TATGGGGCTC TATGGGGCTC TATGGGGCTC
 3210 GACATCCCTA TCCGAAACAA TACGACCTA AGGGGGGG GGTGGGGGG TACGACCTA GGTGGGGGG TACGACCTA GGTGGGGGG

FIG.-21c

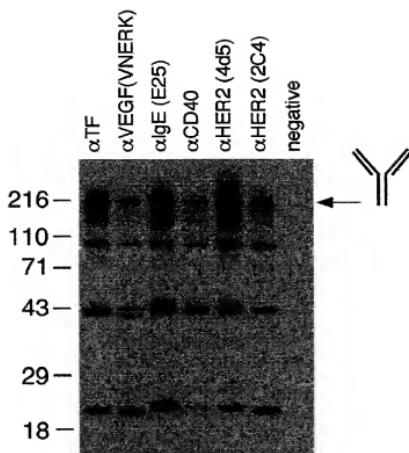


FIG._22A

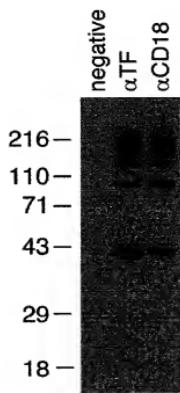


FIG._22B